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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,776	06/06/2005	Tomoaki Mori	07409.0044	4882
22852 7590 11/06/2007 FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 901 NEW YORK AVENUE, NW WASHINGTON, DC 20001-4413			EXAMINER HUNTER, ALVIN A	
			ART UNIT 3711	PAPER NUMBER
			MAIL DATE 11/06/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/537,776

Applicant(s)

MORI ET AL.

Examiner

Alvin A. Hunter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-6 and 9-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-6 and 9-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Applicant has overcome the rejection in the office action dated 4/13/07 by perfecting foreign priority to JP2002-355821. The rejection using DeShiell et al, has been withdrawn. Action on the merits are as follows.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 6, 9, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (US2003/0186760) in view of Kiuno (US2003/0013548).

Regarding claim 1, Lee discloses a club head comprising a hollow golf club head which has a face portion, a crown, portion connected to the face portion, and a sole portion connected to the face portion, wherein a first region whose surface area constitutes 5% or more of a total surface area of the crown portion is formed by a first outer shell member in a region of the crown which is located along a connected edge of the crown portion within a distance of 50mm from the connecting edge and a second region whose surface area constitutes 5% or more of the total surface area of the sole portion is formed by a second outer shell member in a region of the sole portion located along a connecting edge of the sole within a distance of 50mm from the connecting edge wherein the first outer shell member is made of carbon fiber reinforced plastic material and the second outer shell member is formed of a metal alloy. Both materials

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have an elastic modulus. Lee does not disclose the thickness of the first outer shell member and the second outer shell member. Kouno discloses a club head having a face, sole, and crown portions, wherein the crown and sole (first outer shell portion) has a thickness of 0.5 to 1.7mm. It should also be noted tat Kouno discloses that the club head may be made of any combination of materials. Kouno also notes that the thickness is critical in order to improve restitution without sacrificing durability. The above being noted, Carbon fiber reinforced plastic has an elastic modulus of 145 GPa where as steel has a elastic modulus ranging from 186 to 207 GPa. If the thicknesses are the same for both members, the ratio would still be less than 0.75. One having ordinary skill in the art would have found it obvious to have the ratio of any value so long as the durability of the club head is not sacrificed.

Regarding claim 6, see the above regarding claim 1.

Regarding claim 9, Lee discloses the face made of a metal alloy.

Regarding claim 10, see the above regarding claim 1 and 9.

Claims 3-5, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (US2003/0186760) in view of Kouno (US2003/0013548) further in view of Davis (USPN 4971321).

Regarding claims 3-5, see the above regarding claim 1. Further, the thicknesses and the Young's Modulus are already predetermined before assembling the club head due to the selection of materials. Also all club head are designed based on USGA parameters which require the club head to be tested at particular speeds. The

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head speeds are indicative of the weight distribution of the club. The lower the weight within the club head, higher the head speed. It is also common knowledge that every club head has a loft and lie angle. As noted above, the method of designing would have been routine for one skilled in the art. The loft angle dictates the trajectory of the golf ball whereas the lie angle dictates the direction of the shot. Methods of designing would have been routine for one having skill in the art. Davis discloses a set of clubs wherein club has the same parameters except for the loft and lie angles and the shaft lengths wherein distance and head speed are increased. The idea is to design the club set to where the average golfer does not have to change their approach of swinging the club. One having ordinary skill in the art would have found it obvious to design a set of golf clubs such that the parameters are similar for the reasons above.

Regarding claims 11 and 12, see the above regarding claims 3-5. The fiber reinforced material would already have an orientation angle such that the strength of the crown is maximized

Response to Arguments

Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new ground(s) of rejection.

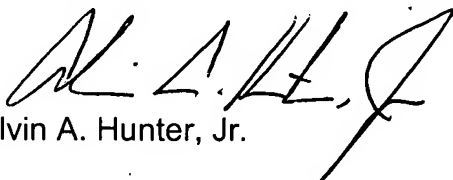
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alvin A. Hunter whose telephone number is 571-272-4411. The examiner can normally be reached on Monday through Friday from 7:30AM to 4:00PM Eastern Time.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eugene Kim, can be reached on 571-272-4463. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Alvin A. Hunter, Jr.